

REMARKS

Independent claims 13, 17, and 21 have been amended to state that the decorative sheet consists essentially of an acrylic resin that is a member of the Markush group recited in now-canceled claims 15 and 19. Claims 16 and 20 have been amended to depend from claims 13 and 17, respectively, in light of the cancellation of claims 15 and 19. The claims before the Examiner thus are claims 13, 14, 16 to 18, and 20 to 22. Applicant respectfully submits for the reasons developed below that the claims patentably define over the cited art.

The ongoing rejection of claims 13 to 22 under 35 USC 103 as unpatentable over Takada et al. '916, if applied to the claims as amended, is respectfully traversed. The independent claims now specify that the decorative sheet consists essentially of the acrylic resin of the Markush group containing a lubricant in an amount sufficient to give a coefficient of kinetic friction with respect to a flat glass plate in the range of 0.2 to 0.9. Claims 13 and 17 both specify that the acrylic resin has a glass transition temperature of 80°C or below (the specification at page 4, lines 17 to 23 contains a statement that using an acrylic resin having a glass transition temperature of no more than 80°C allows one to reduce the thermal energy needed to heat the acrylic resin sheet during injection molding or during preforming, to suppress

the heating temperature on a low level, and to reduce cycle time) while claim 21 specifies only the coefficient of kinetic friction, the range provided by the lubricant. However, all independent claims use the limiting phrase "consisting essentially of."

Applicant respectfully submits that the instantly claimed subject matter is not taught or suggested by Takada et al. '916 because that patent clearly describes a photopolymerizable polymer composition comprising a modified acrylic copolymer formed of a number of recited components to give a three-dimensional crosslinked polymer upon curing. See the following areas in the patent: the Abstract; column 2, lines 25 to 45; column 4, lines 30 to 46, the examples, and claim 1. The independent claims have been amended to exclude the co-reactants shown in and necessary to Takada et al. '916. The person of ordinary skill in the art would have no reason to eliminate the additional required components of the Takada et al. '916 photopolymerizable resin composition that is formulated expressly to be cured and thus form a three-dimensional crosslinked polymer. For this reason alone, Takada et al. '916 is not a proper reference to reject the claims here.

The disclosure in the reference at column 5 regarding various additives does not teach or suggest the specifics of the instant claims and clearly, with the change discussed above, the reference does not teach or suggest the invention as claimed. The lubricant

is provided in the acrylic resin in the designated amounts to form a product having high abrasion resistance and no creasing, strain or dislocation from stress during injection molding; see page 2, lines 9 to 32 and the paragraph bridging pages 16 and 17 of the specification. Takada et al. '916 contains no such teaching or suggestion.

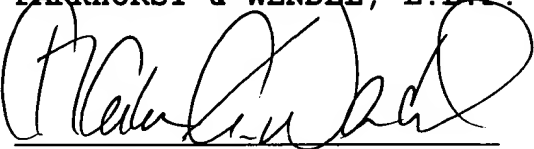
The rejection of claims 13 to 22 under 35 USC 103 as unpatentable over Takada et al. '916 "as evidenced by" Culbertson et al. '784, Chu et al. '758, Chu et al. '241, Steklenski '276, Murata et al. '135, Nakata et al. '211, or Krenceski et al. '215, if applied to the claims as amended, is respectfully traversed. These "evidentiary" secondary references are cited to show the use of additives, including slip agents, in various compositions. These further references, however, do not teach or suggest the modifications required of Takada et al. '916 discussed in detail above that would be necessary to arrive at applicant's invention. Accordingly, this rejection should be withdrawn as well.

In view of the foregoing arguments and remarks, it is respectfully submitted that claims 13, 14, 16 to 18, and 20 to 22 are in condition for allowance and a USPTO paper to those ends is earnestly solicited.

The Examiner is requested to telephone the undersigned if additional changes are required prior to allowance.

Respectfully submitted,

PARKHURST & WENDEL, L.L.P.


Charles A. Wendel
Registration No. 24,453


Date

CAW/ch

Attorney Docket No.: DAIN:435A

PARKHURST & WENDEL, L.L.P.
1421 Prince Street, Suite 210
Alexandria, Virginia 22314-2805
Telephone: (703) 739-0220

MARKUP

Consisting essentially

13. ^(Amended) A decorative sheet [formed] of an acrylic resin that is a member selected from the group consisting of [homopolymers of (meth)acrylates, copolymers containing a (meth)acrylate and mixtures thereof]

polymethyl (meth)acrylate,
polyethyl (meth)acrylate, poly-butyl (meth)acrylate,
methyl (meth)acrylate-butyl (meth)acrylate copolymers,
methyl (meth)acrylate-ethyl (meth)acrylate copolymers,
ethyl (meth)acrylate-butyl (meth)acrylate copolymers, and (meth)-
acrylate-styrene copolymers +

said acrylic resin containing a lubricant in an amount to give a coefficient of kinetic friction with respect to a flat glass plate in the range of 0.2 to 0.9, said acrylic resin having a glass transition temperature of 80°C or below.

(Amended)

16. ^(Amended) The decorative sheet of claim ¹³ [15], further comprising a backing resin sheet laminated to one surface of the decorative sheet.

17. ^{Twila} (Amended) A sheet-decorated molding having a surface coated with a decorative sheet [formed] of an acrylic resin ^{consisting essentially} that is a member selected from the group consisting of [homopolymers of (meth)acrylates, copolymers containing a (meth)acrylate and mixtures thereof,]

polymethyl (meth)acrylate,
polyethyl (meth)acrylate, poly-butyl (meth)acrylate,
methyl (meth)acrylate-butyl (meth)acrylate copolymers,
methyl (meth)acrylate-ethyl (meth)acrylate copolymers,
ethyl (meth)acrylate-butyl (meth)acrylate copolymers, and (meth)-
acrylate-styrene copolymers

said acrylic resin containing a lubricant in an amount to give a coefficient of kinetic friction with respect to a flat glass plate in the range of 0.2 to 0.9, said acrylic resin having a glass transition temperature of 80°C or below.

20. ^(Amended) The sheet-decorated molding of claim [19] ¹⁷ further comprising a backing resin sheet interposed between the molding and the decorative sheet.

(Amended)

consisting essentially

21. ~~(new)~~ A decorative sheet for use in a sheet-decorating injection molding method, said decorative sheet ~~(being formed)~~ of an acrylic resin

selected

from the group consisting of polymethyl(meth)acrylate, polyethyl(meth)acrylate, poly-butyl(meth)acrylate, methyl(meth)acrylate-butyl (meth)acrylate copolymers, methyl(meth)acrylate-ethyl(meth)acrylate copolymers, ethyl(meth)acrylate-butyl(meth)acrylate copolymers, and (meth)-acrylate-styrene copolymers

which contains a lubricant in an amount to give a coefficient of kinetic friction with respect to a flat glass plate in a range of 0.2 to 0.9.